ABSTRACT

A delay device 102 sends reception signals to a subtraction device 113 after delaying it by a predetermined time. Matched filters 103-1 ∼ 103-N perform despreading operation of the reception signals. RAKE-combining devices 104-1 ∼ 104-N perform RAKE-combining operation of the signals after the despreading operation. Discrimination devices 105-1 ∼ 105-N perform hard decision of the signals after the RAKE-combining operation. A decision value buffer 107 stores the signals after the hard decision. Likelihood calculation devices 106-1 ∼ 106-N calculate likelihood of all the symbols. A likelihood buffer 108 stores calculated likelihood. A controlling part 110 controls a switch 109. A ranking decision device 111 decides a ranking based on the likelihood. A re-spreading device 112 performs re-spreading operation of a symbol with the highest likelihood ranking. And a subtraction device 113 subtracts the re-spreading result from the delayed reception signals.